

Employment and labour *markets in the* Dominican Republic: *an overview of the literature*

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This article reviews the literature on employment, wages and the labour markets in the Dominican Republic. Although this will primarily be of interest to economists, it may also be useful to social scientists in general and to those responsible for formulating policies affecting the functioning of the labour market at both the national and the Latin American regional level. The study begins by presenting the main sources of statistical information on labour, after which it focuses on studies on the overall functioning of the Dominican labour market. It then goes on to deal with studies exploring specific labour markets, such as those for micro-entrepreneurs and women, and the literature on wages. This review reveals that there are few studies carried out with scientific precision and aimed at economic aspects proper: most of the studies are of a descriptive, sociological or multidisciplinary nature. The article concludes with some proposals for possible lines of future research in this field, especially the analysis of the existing labour statistics and the establishment of a suitable system for their collection and dissemination.

I

Introduction

This study seeks to organize the literature published on the behaviour of the labour factor and its associated elements in the Dominican Republic. A review has therefore been made of the studies on employment and unemployment, wages and the various labour markets. The study will primarily be of interest to economists, but the items covered may also be useful to social scientists and to those responsible for designing policies relating to the functioning of the labour market, both in the Dominican Republic and in Latin America in general.

This study is not entirely in the nature of a critique. It deals mainly with the studies which are most important from the economic point of view, although it also

summarizes studies which relate to other disciplines or are of a multi-disciplinary nature. Only the most recent of the quantitative studies are reviewed in detail, since they have the greatest coverage and their data bases can probably still be consulted now.

After studying the labour statistics in the main sources of data for the analysis of labour in the Dominican Republic, the studies analysing total employment are summarized first, followed by analyses of the various specific labour markets. After a review of the main studies on wages, the article concludes with some recommendations on the line that could be taken by future studies in this field.

II

Labour statistics

The sources consulted for studying the question of labour in the Dominican Republic are of different methodological structures and cover different periods. There is no source in that country which has collected information on labour systematically over a really long period of time, although many efforts have been made to achieve that objective.

1. The primary sources

The population censuses carried out by the Oficina Nacional de Estadística (National Statistical Office - ONE) in 1920, 1935, 1950, 1960, 1970, 1981 and 1993 are the starting point *par excellence* for analysing the evolution

of the population in general and certain characteristics of the members of the labour market, as well as for designing samples for other studies of a similar nature, such as surveys.¹

Apart from the censuses, a number of surveys have also been made, among them the population and health survey (ENDESA), a multi-purpose study carried out in 1986, 1991 and 1996 (see ONAPLAN/CESDEM/PROFAMILIA, 1997) which includes some details of the work of those interviewed. The information from the expanded household questionnaire used in this survey has served as the basis for analysing various specific aspects of the Dominican labour market (see Ramírez, 1993).

The main statistics currently available on this market are those from the labour force survey carried out since 1986 by the Central Bank of the Dominican Republic.² Although initially this survey was carried out

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¹ For a compact and up-to-date summary of the history, methodology and organization of the seven censuses carried out in the country by the ONE, see Nicasio and De La Rosa (1998).

² The methodological details of this survey, such as the sample design and the definitions used, may be consulted in BANCENT (1997, pp. 9-24), and Gregory (1997, pp. 1-2).

four times a year, since 1993 it has only been effected annually, for budgetary reasons. The survey is prepared by the Central Bank of the Dominican Republic rather than by the National Statistical Office (ONE), likewise mainly for budgetary and human resources reasons. The same thing has happened in the past with other surveys, such as the household surveys, and with the price and national accounts statistics.

The Central Bank's labour force surveys collect information on the number of persons employed and unemployed, average incomes, and hours worked, by income deciles. As from 1996, their scope has been expanded to collect information on the size of the firms that persons work for and on other types of income they receive, which facilitates the classification of employed persons according to whether they work in the formal or informal sector of the economy. The survey also collects information on income from remittances sent by other family members and retirement payments.

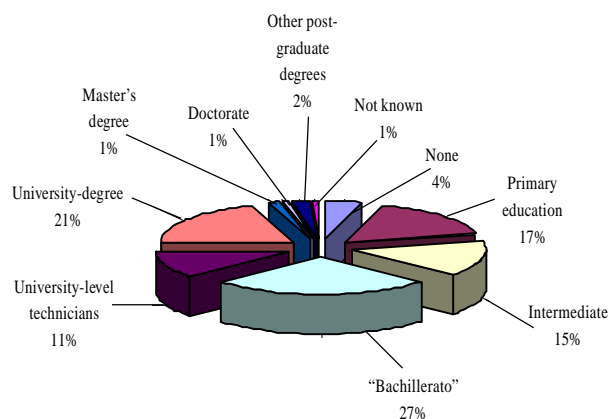
Among the main studies which have been made only once is the ENMO-9³ nationwide labour survey (see FUNDAPEC, 1992) which was limited to the collection of information on firms in free zones, tourism and agro-industries and on students in the fourth year of the *bachillerato* course and technical training courses. For these sectors, this survey recorded: i) the characteristics of the labour market; ii) the stock of labour; iii) future labour needs, including training needs;⁴ iv) the views and expectations of students, workers and entrepreneurs on the situation and prospects of the labour market; and v) the development of free zones, agro-industry and tourism and the relation between these sectors and the development of the economy as a whole.

The National Statistical Office (ONE) recently made a census of public employees in the Dominican Republic (ONE, 1998). According to this census, these employees represent 11.64% of the economically active population and total 303,478 persons, 41.1% of whom are women. Furthermore, almost half (40.8%) are aged between 35 and 49. One of the most interesting figures given by the census is that only about one-fifth of all public employees have university degrees (figure 1).

³ This was made in 1991 as part of the technical cooperation programme to strengthen the technical and vocational education system in the Dominican Republic carried out by the APEC Educational Credit Foundation Inc. (FUNDAPEC) with resources from the Inter-American Development Bank.

⁴ The training needs were estimated on the basis of forecasts of the number of workers who will enter the economic sectors studied each year.

FIGURE 1
Dominican Republic: Public servants,
by level of education, 1997



Source: National Statistical Office (ONE), 1998.

2. Primary sources of more limited scope

Del Rosario and Hidalgo (1986) developed and applied to the case of the Dominican Republic a methodology for calculating nominal and real wage indexes. Unfortunately, the collection of these indexes was not continued.

With regard to the rural sector, the labour characteristics were analysed on the basis of the survey prepared in 1989 by the Agricultural Studies Unit of the National Council for Agriculture (Santana, 1990).

The studies carried out by the Micro-enterprise Finance Fund (FONDOMICRO) were very useful for the analysis of micro- and small-scale enterprises, since they contain, among other data, statistics on labour in that sector (Cabal, 1992 and 1993; Moya and Ortiz, 1994 and 1995; Ortiz, 1996 and 1998).

Other interesting sources of information were the statistics on different aspects of trade union activities in the country (ONE, 1993) and the *Boletín de estadísticas laborales* of the Ministry of Labour (see Dominican Republic, Secretaría de Estado de Trabajo, 1999), which contains statistics prepared both by that Ministry and by other institutions.

The *Boletín de estadísticas laborales*, of which four issues have already appeared, provides detailed information on the registration of companies, new jobs generated, by sex and wage, branch of activity, size of firm and production regime, and casual jobs generated each year.

This information is collected by the Ministry of Labour through Form DGT-3, "Permanent staff payroll", and DGT-4, "Changes in permanent staff or payroll", which must be completed, according to the Labour Code, by all industrial, commercial and services establishments registered in the Labour Department of that Ministry.

Although the amount of data available in the bulletins of the Ministry of Labour is not sufficient to make econometric analyses based on time series, it would be possible to gain access to the original micro-sources and process them to carry out cross-sectional or longitudinal studies. It would also be interesting in the future to compare the statistics generated by this Ministry with those of the labour force survey carried out by the Central Bank.

The national survey of political and democratic culture (DEMOS) could be used as a source of data for the analysis of labour relations (see Duarte Brea and Tejada, 1998), while the national survey of young people between 15 and 24 (ENJOVEN-92) provides data on that

group's participation in the labour market (Tejada, Herold and Morris, 1998).

There are also sources of statistical information on two of the most dynamic sectors in the Dominican economy: the free zones and tourism. The periodical publications of the National Council of Export Free Zones provides information on the free zones and on employment in them.

For historical information on employment in the tourism sector, a useful source is *Turismo en cifras* (Dominican Republic, Secretaría de Estado de Turismo, 1996).

Other surveys relating to the labour factor which have been carried out in the country are the survey made by the National Planning Office (see ONAPLAN, 1968), that of the Central Bank of the Dominican Republic, the National Statistical Office and the United States Agency for International Development (BANCENT/ONE/USAID, 1968), and the survey carried out by the latter agency and the Ministry of Agriculture (USAID/Dominican Republic, Secretaría de Estado de Agricultura, 1977).⁵

III

Global analysis of the labour market

Most of the studies on the labour market in the Dominican Republic are based on the analysis of surveys, mostly without continuity, thus limiting the possibility of making systematic historical comparisons of the evolution of various variables or ratios.

For example, figure 2 shows the level of unemployment in the Dominican Republic over the period from 1968 to 1998, according to estimates obtained from a number of different sources.⁶ This phenomenon appar-

ently persisted throughout the period in question, at levels ranging from approximately 15% to 28%, without displaying any marked trends over time or volatility.

FIGURE 2
Dominican Republic:
Unemployment, 1968-1998



Source: For the years 1968-1980 and 1982-1983: García and Valdivia (1985), table 24, p. 65; for the years 1981 and 1984-1990: Ceara (1992), table 1, p. 14; for the period from 1991 to 1998: data from the Central Bank of the Dominican Republic.

⁵ In addition to the sources mentioned, there are also secondary sources of statistics which have been or could be used to study various labour-related elements in the Dominican Republic. Among them are Ramírez, Tatis and Germán (1983) and Quiterio and Polanco (1990), who prepared population and labour projections for various periods, based mainly on population censuses. Other important sources are the time series on the minimum wage in nominal and real terms in the public and private sectors and the statistics and indicators on staff employed by the central government, collected by Adolfo Martí (1997, pp. 339-347). Finally, the *Bulletin of Labour Statistics* published by the ILO (see, for example, ILO, 1998) is another important source of data.

⁶ Not all the data in figure 2 come from comparable sources, so they should be interpreted with caution.

Of the many employment studies made in the country, only a few can be considered sufficiently exact and therefore useful for reference purposes. This is true of studies made one or more decades ago.

The report entitled *Generación de empleo productivo y crecimiento económico: el caso de la República Dominicana* (International Labour Office, 1975) may be considered the most complete and frequently cited in its class; it includes both microeconomic and macroeconomic analyses.⁷ After an opening section giving a summary and conclusions, the main body of the text is divided into five major parts: unemployment and poverty; the present situation; recent trends in the supply and demand of labour; details of employment in three basic sectors, and institutional factors. There are also several annexes.

One of the main objectives of the ILO study is to estimate the impact of rapid economic growth on employment and, on the basis of this relationship, to analyse how development could result in an increase in employment. It seeks to do this by entering into the fields of both positive and normative economics.

A shortcoming of the study is that the large number of statistical analyses presented, on which most of its conclusions are based, are basically of a descriptive nature. The study does not apply econometric techniques to particular hypotheses that could bear out its conclusions scientifically. Moreover, as the study itself warns, the figures used must be taken with caution.

One of the main conclusions of the analysis is that since 1969 the Dominican economy has been growing at the extraordinarily rapid rate of 10.9% per year, yet this rapid economic expansion does not seem to have reduced unemployment in Santo Domingo (ILO, p. 5). As we shall see later, this situation still persists and poses difficult questions to the government authorities, economists and social scientists in general.

García and Valdivia (1985) made a general analysis, sponsored by the ILO, of the situation of the Dominican economy in 1980-1983. This analysis deals with the subject of employment in some detail: specifically, the authors analyse the process of adjustment of the Dominican economy to the 1980-1983 international crisis and its repercussions on the labour market. The section entitled "Employment and incomes" is of particular interest for the purposes of the present study. In it, the authors analyse the growth of the labour force, employment and unemployment in urban areas, the medium-term

evolution of real wages, and the adjustment of the labour market in 1980-1983.

Like the ILO, García and Valdivia (1985, pp. 67-68) note that a structural feature which is present even in the most dynamic periods of the Dominican economy is the tendency towards marked under-utilization of the labour force, both in rural and urban areas, as reflected in the high rates of open unemployment and under-employment detected by a number of sources. Thus, the 1980-1983 crisis came on top of tendencies which were already deeply rooted in the development of the Dominican Republic, further accentuating the serious problems that the country was already suffering.

These authors also point out the tendency of real wages to go down during the period from 1974 to 1983, noting that this decline occurred in spite of the subsidies applied to various components of the consumer price index during much of the period in question. Their study also shows that the differences in income between Santo Domingo and the other urban centres of the country tended to increase in this period.

More recently, Gregory made a study of the Dominican labour market which was based mainly on the labour force survey prepared by the Central Bank, although he did not limit himself to that source (Gregory, 1997).⁸ In it, he analyses both the structure and the results of the Central Bank surveys. After examining the methodology of those surveys, he comes to the conclusion that the high rates of unemployment they report are due at least in part to the measure of unemployment used: they classify as unemployed persons who have not been actively seeking work during a reasonable period of time, so that a person who has been passively looking for work for several months can thus be classified as unemployed.

Table 6 of Gregory's study presents various different scenarios, based on the statements of unemployed persons about their search for work. The difference between the measurements is considerable. On the basis of

⁷ A version of this report was published by the National Planning Office (ONAPLAN, 1974).

⁸ It is interesting to note that Gregory's study was inspired by Arnold Harberger's comments (Harberger, 1997, pp. 12-14) on the economic growth and level of unemployment of the Dominican economy. Harberger noted that the country's healthy growth rates were not in keeping with the high level of unemployment registered in the Central Bank surveys. Similar observations were made in such studies as International Labour Office (1975), García and Valdivia (1985), Cabral (1975), Duarte (1983), Lozano (1987), Liz (1993), Weller (1993 and 1998), Alemán (1994) and Vargas (1995). In studies such as Alemán (1996a and b), Aristy (1996) and Santana (1996), specific strategies are proposed for increasing the capacity of the Dominican economy to generate employment, in view of the apparent persistence of the situation described by Harberger and many other authors.

the data for the expanded sample used in the Central Bank survey for April 1997, the rate of unemployment was 15.7% if all those declaring that they would accept work if offered were considered as unemployed, but only 6.5% if based on those actively seeking work (less than a month looking for work).

In the past, estimates of unemployment had also been made on the basis of the length of time seeking work. García and Valdivia (1985, tables 24 and 25) adjusted a series for the unemployment variable obtained on the basis of several surveys. As was to be expected, the measures of unemployment varied when all those who declared that they had been seeking work for a year or more during the reference period were excluded from the open unemployed and the economically active population. Thus, the unemployment rate went down from 24% to 20.8% (adjusted) in 1970 and from 21.4% to 15% (adjusted) in 1983. It would have been interesting if these authors had also calculated unemployment rates based on shorter periods of seeking work, as the Central Bank did.

From the studies reviewed so far it may be inferred that what is known of the Dominican labour market is largely uncertain. The main studies (International Labour Office, 1975; García and Valdivia, 1985; Gregory, 1997) base their analyses on statistics which are not completely reliable, as well as not using strictly scientific methods which take the fullest advantage of the available data.

Márquez (1998), for example, notes the difference in magnitude between unemployment in Latin America on the one hand and the Caribbean on the other, the level

being historically lower in the former. He points out, however, that recent studies such as those by Rama (1995) for Jamaica and Gregory (1997) for the Dominican Republic indicate the possibility that the high rates of unemployment registered in those countries may be affected by measurement problems.

The primary sources of statistics for the Dominican Republic have rarely achieved continuity, and so far only one of them - the Central Bank's labour survey - is specifically designed to collect information on the labour market.

What can we say about the global behaviour of the Dominican labour market? In the words of Gregory (1997) "The general consensus about employment conditions in the Dominican Republic is that they are terrible. Unemployment affects between 20% and 60% of the labour force, with a modal value close to 30%. Continual reference to unemployment figures at these levels over the last 30 years or more has become a dogmatic routine. From this point of view, however, there is a marked conceptual difference between the views of the public authorities and those of economists specializing in labour issues as to what constitutes unemployment. As far as we could gather from conversations and other sources, the view of the public authorities is that anyone who is not working for a modern firm or for the government is unemployed. Obviously, this is very far removed from the standard definition of unemployment, which is considered to be the situation of individuals who have no paid employment and are *actively* looking for work" (Gregory, 1997, p. 33).

IV

Specific labour markets

1. Micro-enterprises

Some characteristics of employment in the micro-enterprise/small enterprise sector—one of the most dynamic sectors of the Dominican economy in the recent past—have been analysed in detail in various studies. The participation of women in this sector, for example, was studied by Cely (1993) on the basis of the first national survey of micro-enterprises and small enterprises made by FONDOMICRO in March 1992.

Cely analyses specific characteristics of these enterprises, such as the kind of workers employed in them,

their structure, the activities they are engaged in, and their methods of finance. Among the most interesting findings of the study is the fact that at the time the survey was made around 45.8% of the enterprises in the sector belonged to women, although they only generated 33.4% of total employment in it.

Cabal (1996), likewise basing his research on the surveys made by FONDOMICRO, analyses the changes registered in the size of employment in the micro-enterprise/small enterprise sector between 1992 and 1995. He defines the change in aggregate employment in the sector over a given period of time as the result of two basic

components, i.e., the net change in employment due to enterprises that start up and those that close down, and the change in employment due to the net expansion of the enterprises that survive. This definition is expressed in equation [1]:

$$\frac{\Delta e}{e_t} = \left[\frac{en}{e_t} - \frac{em}{e_t} \right] + \left[\frac{\Delta ep^x}{e_t} - \frac{\Delta ep^c}{e_t} \right] \quad [1]$$

where *en* represents the number of jobs generated by new enterprises, *em* the jobs lost due to the closure of firms, Δep^x the increase in employment due to firms that expand, Δep^c the change in employment due to firms that contract, and e_t is total employment in the sector in period *t*.

On the basis of formula [1], Cabal estimates that the net growth of employment in the micro-enterprise/small enterprise sector in the periods 1992-1993, 1993-1994 and 1994-1995 was 8%, 1.5% and 0.6% respectively. The results of the study seem to indicate that employment in the sector has grown most when the economy has grown least, and vice versa: i.e., the variable displays a counter-cyclical form of behaviour (figure 3). This conclusion should be taken with caution, however, as it is based on the analysis of only a few observations.

Cely (1996) also used formula [1], but applied it to micro-enterprises and small enterprises belonging to women in the 1992-1995 period. The results obtained were different, as employment in these enterprises belonging to women went down by 1.4%, 0.9% and 8.8% respectively in the periods 1992-1993, 1993-1994 and 1994-1995, whereas in enterprises belonging to men net employment *increased* by 16.5%, 8.7% and 3.9%.⁹

More recently, Ortiz (1998) explored some characteristics of micro-enterprises and their labour force. According to this study, in 1998 the workers in such enterprises represented 28.4% of the economically active population (i.e., 955,683 workers), with an average age of 28 and a balanced breakdown by sex. This study also reports that, on average, the employees of the micro-enterprises and small enterprises surveyed have a higher academic level than the owners.

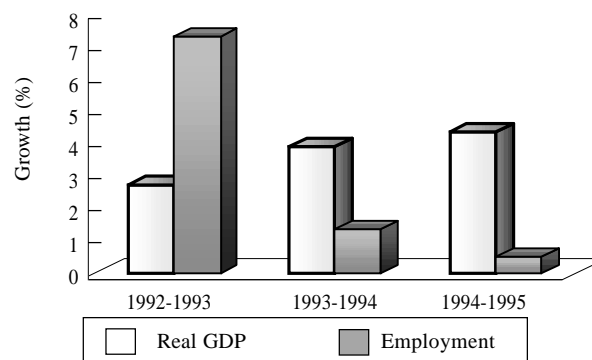
2. Women

An important starting point for analysing women's employment in the Dominican Republic is the bibliogra-

⁹ Cely (1996, chapter 5) gives a detailed explanation of the behaviour of each of the components involved in the calculation of the variation in net employment in micro-enterprises and small enterprises, by sex, in the periods in question.

FIGURE 3

Dominican Republic: Growth of the economy and of employment in micro-enterprises and small enterprises, 1993-1995



Source: Central Bank of the Dominican Republic, and Cabal (1996).

phy prepared by Sherrie Baver (The CUNY Dominican Studies Institute, 1997, pp. 33-40), which lists the main studies, researchers and research centres which have analysed the integration of women into the Dominican labour market. The study by Jean Weisman (The CUNY Dominican Studies Institute, 1997, pp. 41-56) also analyses important aspects of women's employment in the country.

Gurak, Kritz, Mota and Ortega (1979) present a study of women's employment in the Dominican Republic which focuses in particular on the important effect of fertility on women's participation in the labour market. The study shows that, among married women, fertility is strongly related with education and employment: it is negative with respect to the former and ambiguous with respect to the latter. For the universe of employed women, the study finds that the probability of employment is positively related with the education of both the woman herself and her parents and negatively related with age and married status. Education, however, is negatively related with work in the services sector in general and domestic service in particular. In the case of non-working women, both future intention to work and the fact of seeking work are positively related with the education of the father and negatively with the existence of a sentimental union.

In *Forum*, No. 21 (Moya, ed., 1986), some aspects of the socio-economic conditions of working women in the Dominican Republic are analysed from a basically sociological standpoint. Among the studies contained in this compendium is a set of statistics presented by Clara Báez (pp. 49-55) on the participation of Dominican women in the labour market. These statistics indicate that

the largest sector of female employment in the country is domestic service. Women are at a disadvantage compared with men as regards wages and status, have little participation in the rural agricultural labour market, but are predominant in the rural non-agricultural labour market.

Forum, No. 21 also contains a study by François Pou (pp. 83-107) which analyses the national survey of rural women carried out between December 1984 and January 1985 by the Female Action Research Centre (CIPAF). Pou concludes that in the rural sector women tend to engage primarily in home-related activities and only to a lesser extent offer their services on the labour market.

The studies prepared by Báez and Matrilé (1994) and by Martínez (1994) analyse some aspects of the labour market for women trained in non-traditional occupations¹⁰, on the basis of information generated from individual surveys, especially for the Los Mina Norte sector of the city of Santo Domingo.

Martínez notes that, in spite of the material and social barriers against the participation of women in occupations traditionally reserved for men, women are nevertheless willing to do this kind of work if necessary. For such participation to be effective, however, it is necessary to change the deeply rooted beliefs of women and of society as a whole about the masculine nature of the occupations in question. Báez and Matrilé, for their part, advocate more training of women in non-traditional occupations, which should stimulate increased participation by them in such trades.

3. Work by minors

Work by minors has been studied by various authors, including Duarte (1979), Duarte, Gómez and Ariza (1991), Lizardo (1994), Silié (1996) and Alemán (1996a). Alemán gives a summary of the main studies which have been carried out, analyses some particular aspects, including the change in the socio-economic structure of households, and notes that the increase in the participation of minors in the labour market has been accompanied by a reduction in the participation of adults (see Alemán, 1996a, table 19, p. 65).¹¹

¹⁰ According to the criterion adopted in the studies in question, non-traditional occupations for women would include, for example, working as bricklayers, cabinet-makers or auto mechanics.

¹¹ From 45.2% to 43% and from 95.3% to 89.8% between 1981 and 1991, for female and male family heads, respectively.

Duarte, Gómez and Ariza (1991) present statistics showing that the main cause of work by minors is the precarious situation of their homes rather than the wishes of their parents (see table 4.5 on page 131 of the study in question).

4. Free zones

A number of studies have investigated the question of work in the export free zones. Dauhajre, Riley, Mena and Guerrero (1989, pp. 67-109)¹² have analysed the economic impact of free zones on employment in the Dominican Republic. Using a descriptive analysis of the statistics on the direct and indirect employment generated and the wages paid, the study in question also presents econometric estimates according to which a devaluation of the official exchange rate would have a positive impact on employment in the sector, whereas an increase in the minimum wage would have the opposite effect.

Gregory (1997, pp. 24-25), however, notes that "Firms in the free zones also report incomes that amply exceed the minimum wages laid down for the sector. The average monthly income of women –RD\$ 2,590 in the first half of 1996– is 54% higher than the legal minimum wage, while in the case of men the corresponding monthly income –RD\$ 3,624– is more than double the minimum".

Taking a multidisciplinary approach, Pérez Sáinz (1995a) makes a comparative analysis of the way governments, entrepreneurs and trade unionists interact with regard to labour problems in the assembly industries and free zones of Costa Rica and the Dominican Republic. The same author (Pérez Sáinz, 1995b) also compares various factors concerning assembly industries and free zones in Central America and the Dominican Republic: specifically, aspects connected with the process of generation of employment by those activities.

5. Migrants and Haitian labour

One of the features of the Dominican labour market has been migration, the most important component of which is the migration of Dominicans to the United States, generally through Puerto Rico.

With regard to this subject, Rodríguez (1999) notes that "According to figures of the United States Immigration and Naturalization Service, the Dominican Republic, which had a little over seven million inhabitants in

¹² See also Corten and Duarte (1986).

1990, is on the list of the ten countries with the largest number of immigrants admitted to the United States as permanent residents between 1981 and 1996 In relative terms, the number of Dominicans admitted was much greater than in the case of Mexicans, since the former represented 7% of the population of the Dominican Republic in 1990, whereas the latter were only equivalent to around 4% of the population of Mexico”.

Ramón Hernández and Narey López (The CUNY Dominican Studies Institute, 1997, pp. 59-78) give an excellent overview of the problem and a full bibliography of what has been published on this matter.

Immigration of Haitian labour, for its part, has mainly been to the sugar cane-growing areas and the construction sector. A significant number of Haitians are also engaged in trade on the frontier between that country and the Dominican Republic. According to the General Directorate of Migration, over 20,000 Haitians enter and leave the country every day for trading purposes (*Listín Diario*, 1999, p. 20A).

With regard to immigration by Haitians, it would be interesting to know how large it is. How many Haitians work or live (thus representing potential labour) on Dominican territory? Corten and Duarte (1994) give an ex-

tensive bibliography on this subject. According to them, about half a million Haitians and Dominicans of Haitian origin live in the Dominican Republic, although the actual composition of the figure has not been clearly determined.

It would also be interesting to know if Haitian labour displaces Dominican workers, or if it is simply an expression of the free play of supply and demand for labour. The latter seems reasonable in view of the fact that historically Dominicans have rejected the kind of work that Haitians do, such as cutting sugar cane. The problem is complex and has been analysed from a number of angles (Martínez, 1999).

From the economic point of view, a reasonable approximation of the problem of (in)migration can be made, in principle, through a model like that proposed by Harris and Todaro (1970).

Although the problems described are important for the development of the Dominican economy and society, there are no studies of an economic nature which make a strict analysis of their dynamics. In contrast, there are a considerable number of studies from the standpoint of other branches of the social sciences (generally sociology).

V

Wages

1. Income and schooling

The relation between education and the labour market in the Dominican Republic has been analysed in many studies, including for example *Bases para formular una política de empleo en la República Dominicana* (ONAPLAN, 1974) and *Los recursos humanos y el empleo en la República Dominicana* (Education Development Center, 1975).¹³

With regard to the specific relation between income and schooling, Santos (1998) presents econometric estimates based on cross-sectional data from the 1991 and 1996 population and health surveys.¹⁴ This study analyses the impact of secondary education on income, also taking into account other details such as the type of school

attended, geographical area of residence, sex, level of income, and social class.

According to the results obtained in this study, which are similar for both 1991 and 1996, there is a positive relation between the level of schooling and income, with the fact of having studied in a public school being the only one of the factors considered which has a negative impact on income. In contrast, the empirical evidence collected in the study shows that residing in an urban area, coming from the middle or upper class, and being a male positive influence income levels.

2. Minimum wages¹⁵

Among the few studies relating to minimum wages in the Dominican Republic is that recently presented by

¹³ These studies are analysed in Cabral (1976).

¹⁴ The determinants of the educational levels reached in the Dominican Republic have been analysed by Lizardo and Guzmán (1999).

¹⁵ For some aspects of minimum wages in the free zones, see section IV.4 above.

the Ministry of Labour (República Dominicana, Secretaría de Estado de Trabajo, 1997). This study analyses the evolution of minimum wages, the relation between those for men and women, and the relation between the minimum wage and various macroeconomic aggregates of the Dominican economy. It notes that only 4.1% of all those employed receive the minimum wage.

The authors conclude that the minimum wage apparently does not have any effect on the level of inflation but could be an important factor in the services sector, because of its high share in the cost structure of the sector.

Dauhajre, Achecar and Swindale (1994) also investigate the relation between minimum wages and income distribution. They conclude that the real minimum wage has a positive effect on general well-being, because when it is increased it seems to improve income distribution, as measured by the Gini coefficient.

Dauhajre, Riley, Mena and Guerrero (1989, pp. 67-109) present econometric estimates according to which devaluation of the official exchange rate would have a positive impact on employment in the sector, whereas an increase in the minimum wage would have the opposite effect. The explanation would appear to be that, other things being equal, devaluation reduces the cost of local labour expressed in foreign currency.

As noted earlier, however, Gregory (1997, pp. 24-25) points out that the wages in firms in the free zones are considerably higher than the minimum wages laid down for the sector (in the first half of 1996 they were 54% higher for women and over 100% higher for men). He also states (*ibid.*, p. 21) that the multiplicity of minimum wages that exists in the Dominican economy complicates any effort to quantify the impact of the legal minimum wage on workers' real incomes.

VI

Conclusions and possible lines of future research

The main aim of the present study has been to review the literature on labour-related matters in the Dominican Republic. Although a significant number of studies were identified, there was a notable paucity of studies prepared from an economic standpoint with a strictly scientific approach. Instead, most of the studies were of a descriptive, sociological or multi-disciplinary nature.

Future work in this field could be aimed, among other directions, at the preparation of econometric studies which could help verify the consistency of the statistics currently available (primarily the Central Bank survey on the labour force).

Through an analysis of this type, it would be interesting to find strictly scientific answers to such questions as: Does a significant level of unemployment really exist? What is its incidence? What kind of connection is there between vacancies and unemployment? How long do spells of unemployment last, on average? What are the rates of entry into the ranks of the unemployed and exit from them? What impact do minimum wages have on the development of the economy as a whole or specific sectors of it? What factors determine investment in human capital? How does technological development affect the well-being of workers? Are there notable dif-

ferences between the wages paid to workers with similar skills simply because they work in different industries? What role is played by the work of minors? Are there relative inequalities affecting the job opportunities for women and young people? What is the role of the government as an employer? How are wages and employment in the public sector determined?

The results of studies along these lines could be used by those responsible for designing and implementing policies relating to the labour factor in the country and also for improving the collection of statistics. It is essential to build up a system capable of compiling labour statistics that are reliable and, above all, periodically updated.

There are also other lines of research which could be fruitful, such as the detailed analysis of a number of institutional factors like, for example, the economic consequences of the present Dominican labour regulations (Law No. 16-92).¹⁶ Likewise, there are almost no studies on the various ways in which trade unions and em-

¹⁶Dauhajre, Aristy, Riley, Mena, Félix, Guiliani and De Castro (1996, pp. 459-472) have made a succinct analysis of these regulations.

ployers interact to determine the level of employment and wages.¹⁷

No less important is the question of the establishment of a social security system which is soundly based and, above all, self-sustaining over time. The key component

in a system of this nature –suitable legislation– is currently being debated in the National Congress (see Senado de la República Dominicana, 1999).¹⁸

(Original: Spanish)

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¹⁷ De Peña (1977) and Cassá (1990) have however done some useful work in this field. The first-named reviews historical issues which are important for analysing the trade union movement in the Dominican Republic, while the latter author makes a historical-sociological analysis of workers' movements. Hernández (1998) addresses the question of collective negotiation in the Dominican Republic from a legal standpoint.

¹⁸ See also, by way of illustration, Santana and Rathe (1993), PUCMM/CUEPS (1996, chapter VI, pp. 327-368) and Hernández and Hernández (eds.), 1996: this latter work deals primarily with legal aspects of the matter.

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